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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/551,141

09/29/2005

Dennis Karlsson

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20736 7590 08/07/2007  
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EXAMINER

ISLAM, SYED A

ART UNIT

PAPER NUMBER

3611

MAIL DATE

DELIVERY MODE

08/07/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/551,141	<b>Applicant(s)</b> KARLSSON, DENNIS	
	<b>Examiner</b> Syed A. Islam	<b>Art Unit</b> 3611	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 08 June 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 16-31, 33 and 35 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 16-31, 33 and 35 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 June 2007 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Claim Objections***

Claim 23 is objected to because of the following informalities:

Applicant fails to end the claim with a period. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 31 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 31 recites the limitation "said mounting strip" in line 2. There is insufficient antecedent basis for this limitation in the claim.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claim 21 is rejected under 35 U.S.C. 102(e) as being anticipated by Bradford (6,612,055).

Regarding claim 21, Bradford discloses an edge-illuminated electric sign 10 (col. 3, line 40; see fig. 1) comprising a light transmitting material 12 (col. 3, line 41; see fig. 1) having a first edge arranged to receive light from a light source 50 (col. 6, line 3; see fig. 6) into the light transmitting

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material 12, said light transmitting material 12 comprising one or more figures 16 (col. 3, line 42; see fig. 1) in form of a recess 14 (col. 3, line 42; see fig. 3) in the light transmitting material 12, wherein said recess 14 of the one or more figures 16 form a relief 18 (col. 3, line 43; see fig. 3) having a surface comprising a screen pattern 20 (col. 3, line 44; see fig. 3) with varying depth to provide strong luminescence.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 16-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bradford in view of Williams (6,407,361).

Regarding claim 16, Bradford discloses an edge-illuminated sign 10 with one or more figures 16 having a large relief effect and a strong luminescence (in col. 3, lines 10-20, Bradford discloses the invention will produce a lighting effect similar to electric neon light and in col. 1, lines 20-25, Bradford refers the neon lights are known for producing bright and variable color).

However, Bradford fails to disclose a manufacturing method comprising controlling a laser beam using a master program that makes the laser beam scan a line pattern at the same time as the laser beam is modulated by a frequency that controls the amplitude of the input power to the laser and thereby creates a screen pattern at the same time as an image program is superposed the amplitude-controlled scanning frequency, so that the input laser power with amplitude variations proportional to the desired figure will burn at different depths and thereby give a relief of the figure, in the sign. Instead, Williams discloses a manufacturing method comprising controlling a

laser beam using a master program that makes the laser beam scan a line pattern at the same time as the laser beam is modulated by a frequency that controls the amplitude of the input power to the laser and thereby creates a screen pattern at the same time as an image program is superposed the amplitude-controlled scanning frequency, so that the input laser power with amplitude variations proportional to the desired figure will burn at different depths and thereby give a relief of the figure, in the sign. In col. 3, lines 15-25; Williams discloses that the laser software recognizes the line on the artwork which means the laser beam scans the line using a master program, in col. 3, lines 35-45, Williams discloses the laser program software converts the lines on each artwork piece to signals which control laser movement. The material in the work piece is removed from the work piece for that particular layer according to lines appearing on the particular piece of artwork which means the laser beam is modulated by a frequency that controls the amplitude of the input power to the laser and thereby creates a screen pattern at the same time as an image program is superposed the amplitude-controlled scanning frequency, so that the input laser power with amplitude variations proportional to the desired figure will burn at different depths and thereby give a relief of the figure, in the sign. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to use the teaching of Williams in the invention of Bradford for the purpose of engraving a three-dimensional image into a surface used for forming items having embossed images.

Regarding claim 17, Bradford fails to disclose lines of the line pattern have a distance from each other that is essentially equal to the length of the screen pattern. However, Williams discloses disclose lines of the line pattern have a distance from each other that is essentially equal to the length of the screen pattern. In col. 3, lines 35-45, Williams discloses the laser program software converts the lines on each artwork piece to signals which control laser movement. The material in the work piece is removed from the work piece for that particular layer according to lines appearing on the particular piece of artwork. Therefore, it would have been obvious to one of ordinary skill in

the art at the time of invention to use the teaching of Williams in the invention of Bradford for the purpose of precluding the need to continuously adjust the laser beam power during engraving of the work-piece.

Regarding claim 18, Bradford fails to disclose lines of the line pattern have a distance from each other that is essentially equal to about 0.1 mm. However, the applicant has failed to mention the reason for having this limitation in the specification. As it appears, the invention will work equally with more or less than 0.1 mm. It would have been obvious to one of ordinary skill in the art at the time of invention to make the line patterns at any distance as desired.

Regarding claim 19, Bradford fails to disclose the lines of the line pattern have a distance from each other that is different from the length of the screen pattern. Williams discloses the depth of screen pattern can be varied by adjustment of the laser power. The greater the power the greater the depth of laser beam (col. 3, line 25-30) penetration into work piece, from which it can be understood the screen pattern can be varied than the line pattern scanned by a program. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to use the teaching of teaching of Williams in the invention of Bradford for the purpose of creating a three dimensional effect with a varying depth.

Regarding claim 29, Bradford fails to disclose the lines of the line pattern have a distance from each other that are larger or smaller than the length of the screen pattern obtained by the frequency that controls the amplitude of the input laser power and thereby can create screen patterns of differing character. Williams discloses the depth of screen pattern can be varied by adjustment of the laser power. The greater the power the greater the depth of laser beam (col. 3, line 25-30) penetration into work piece, from which it can be understood the screen pattern can be varied than the line pattern scanned by a program. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to use the teaching of teaching of Williams in the invention of Bradford for the purpose of creating a three dimensional effect with a varying depth.

Claim 22-25 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bradford in view of Viret et al. (3,241,256).

Regarding claim 22, Bradford fails to disclose a film or foil with a screen pattern, in which the screen pattern has a fineness proportional to the luminescence desired in different positions of the background and that the fineness is also proportional to the distance to the illuminated edge. However, Viret et al. disclose a film or foil with a screen pattern 22 (col. 3, line 37; see fig. 7), in which the screen pattern has a fineness proportional to the luminescence desired in different positions of the background and that the fineness is also proportional to the distance to the illuminated edge (col. 3, line 55-60; see fig. 7; where it shows the dots are of different shape proportional to the illumination desired). Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to use the teaching of Viret et al. in the invention of Bradford for the purpose of providing the desired brightness distribution.

Regarding the limitation of the screen pattern being produced by controlling a laser beam using a master program that makes the laser beam scan a line pattern at the same time as the laser beam is modulated by a frequency that controls the amplitude of the input power to the laser and thereby creates a screen pattern at the same time as an image program is superposed the amplitude-controlled scanning frequency, so that the input laser power with amplitude variations proportional to the desired figure will burn at different depths and thereby give a relief of the figure, in the sign, the relief having a surface comprising a screen pattern with varying depth to provide strong luminescence, the limitation is considered as a method of manufacturing. And since the method is included in an article, the limitation has been given no further consideration by the office. As examined by the office, all the structures as claimed in the article claim are present in prior art.

Regarding claim 23, Bradford disclose a first mounting device, that is adapted to position and/or protect light-emitting elements at or inside an edge portion of said electric sign. (see figure A below).

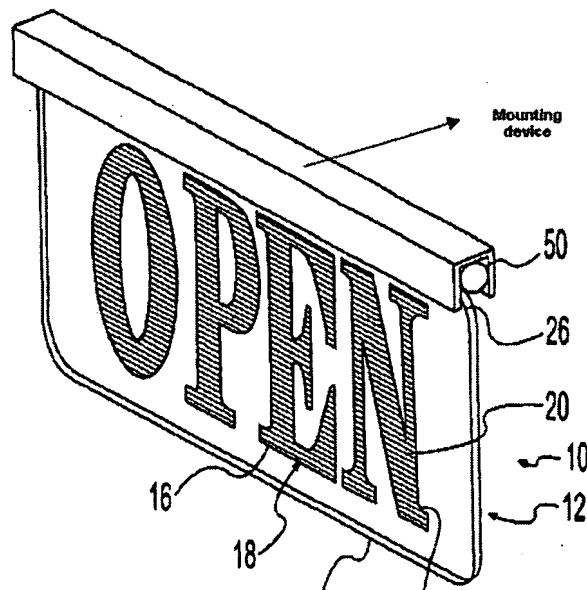


Figure A

Regarding claim 24, Bradford discloses said mounting device is a continuous element that is arranged along a main part of said edge portion (see figure A where is shows the mounting device is one element).

Regarding claim 25, Bradford discloses said mounting device is provided with at least one connecting means, arranged to enable positioning of the electric sign at a desired location. The top portion of the mounting device is plane and can be inserted as a male or female element to any other connectors.

Regarding claim 33, Bradford fails to disclose said mounting device is an extruded element. However, the figure shows a continuous element that can be made of extrusion or any other method. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to make the mounting device an extruded profile element because it only requires common knowledge to do so.

Claims 26-28 and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bradford in view of Viret et al. as applied to claim 25 above, and further in view of Donovan (4,166,332).



Regarding claim 26, Bradford discloses that said connecting means is comprises a male or female element (the top portion of the mounting device can be a male element for interaction with a female element). However, Bradford as modified fails to disclose of a mounting strip having a therefore adapted male of female element, for mounting of the electric sign. Instead, Donovan discloses a mounting of strip 22 (col. 2, line 68; see fig. 2) having therefore adapted female element for interaction with mounting device 17 (col. 2, line 63; see fig. 1). Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to use the teaching of Donovan in the invention of Bradford as modified for the purpose of connecting the sign in a variety of fashions.

Regarding claim 27, Bradford as modified discloses said mounting device is provided with at least two connecting means, arranged at different angles in relation to each other. The two side walls of the mounting device can be used as connecting means to connect with a wall or other connectors (see figure A above).

Regarding claim 28, Bradford discloses said mounting device is provided with at least two connecting means displaced by  $90^{\circ}$  (see figure A above).

Regarding claim 35, Bradford as modified fails to disclose said mounting strip is an extruded element. However, Donovan discloses said mounting strip is an extruded element (col. 2, line 23). Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to use the teaching of Donovan in the invention of Bradford as modified because it only requires common knowledge in the art.

Claims 29-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bradford in view of Viret et al. as applied to claim 23 above, and further in view of Chao et al. (4,028,828).

Regarding claim 29, Bradford fails to disclose said mounting device, at least at one of its end portions, is provided with a connector that is connected to said light-emitting elements. However, Chao et al. disclose said mounting device 21 (col. 2, line 21; see fig. 4), at least at one of its end

portions, is provided with a connector 33 (col. 3, line 4; see fig. 5) that is connected to said light-emitting elements. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to use the teaching of Chao et al. in the invention of Bradford as modified for the purpose attaching multiple illuminated signs together.

Regarding claim 30, Bradford fails to disclose that said mounting device is provided with connectors at both ends. However, Chao et al. disclose that said mounting device is provided with connectors at both ends (col. 3, lines 5-10). Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to use the teaching of Chao et al. in the invention of Bradford as modified for the purpose attaching multiple illuminated signs together on both sides of the sign.

Regarding claim 31, the claim is rejected as set forth in claim 29.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Syed A. Islam whose telephone number is (571) 272-7768. The examiner can normally be reached on Monday-Friday 9am-6pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lesley D. Morris can be reached on (571) 272-6651. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Lesley D. Morris  
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July 30, 2007



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